

REMARKS/ARGUMENTS

The above-identified patent application has been amended and reconsideration and re-examination are hereby requested.

With regard to Applicant's requested interview, it is requested that the interview be held after the Examiner has reviewed this response. Then, if there are remaining issues, it is respectfully requested that the Examiner contact applicant's attorney to arrange a telephone interview at a mutually convenient day and time. In any event, it is respectfully requested that the Examiner contact applicant's attorney prior to the Examiner issuing any final rejection.

Claims 8, 10-11, 13 and 32-57 stand rejected under 35 USC 103(a) as being patentable over Maguire (4686070) alone, or in view of Serpek (1030929). Claim 12 stands rejected over Maguire and optionally in view of Serpek further in view of JP 403023269A or Dodds 52925584.

Referring to the claims:

Claim 32 points out that the method includes reacting the aluminum oxide particles and carbon particles introduced into the a chamber while mixing the aluminum oxide particles and carbon particles within the chamber and while passing nitrogen gas over the mixing aluminum oxide particles and carbon particles with the chamber being maintained at a temperature sufficient to convert the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride during the entire conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride. It is respectfully submitted that nothing in either Maguire (4686070) alone, or in view of Serpek (1030929) describe, suggest or recognize that aluminum oxynitride be produced by reacting the aluminum oxide particles and carbon particles introduced into the a chamber while mixing the aluminum oxide particles and carbon particles within the chamber and while passing nitrogen gas over the mixing aluminum oxide particles and carbon particles with the chamber being maintained at a temperature sufficient to convert the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride during the entire conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride as set forth in claim 32.

Claim 34 points out that the process includes reacting the aluminum oxide particles and carbon particles introduced into the provided chamber while mixing the aluminum oxide particles and carbon particles within the provided chamber and while passing nitrogen gas over the mixing aluminum oxide particles and carbon particles with chamber having a temperature maintained constant during conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride. It is respectfully submitted that nothing in either Maguire (4686070) alone, or in view of Serpek (1030929) describe, suggest or recognize that aluminum oxynitride be produced by reacting aluminum oxide particles and carbon particles introduced into a chamber while mixing the aluminum oxide particles and carbon particles within the chamber and while passing nitrogen gas over the mixing aluminum oxide particles and carbon particles with chamber having a temperature **maintained constant *during conversion* of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride** as set forth in claim 34.

Claim 36 points out that the method includes reacting aluminum oxide particles and carbon particles introduced into a chamber while mixing the aluminum oxide particles and carbon particles within the chamber and while passing nitrogen gas over the mixing aluminum oxide particles and carbon particles with the chamber having a temperature *maintained constant* **during conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride**; and continuously removing the aluminum oxynitride from the chamber. It is respectfully submitted that nothing in either Maguire (4686070) alone, or in view of Serpek (1030929) describe, suggest or recognize that aluminum oxynitride be produced by reacting aluminum oxide particles and carbon particles introduced into a chamber while mixing the aluminum oxide particles and carbon particles within the chamber and while passing nitrogen gas over the mixing aluminum oxide particles and carbon particles with the chamber having a temperature *maintained constant* **during conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride**; and continuously removing the aluminum oxynitride from the chamber, as set forth in claim 36.

Claim 38 points out that the method includes reacting aluminum oxide particles and carbon particles introduced into a chamber while mixing the aluminum oxide

particles and carbon particles within the chamber and while passing nitrogen gas over the mixing aluminum oxide particles and carbon particles with the chamber having a temperature about 1700-1900°C during conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride. It is respectfully submitted that nothing in either Maguire (4686070) alone, or in view of Serpek (1030929 describe, suggest or recognize that aluminum oxynitride be produced by reacting aluminum oxide particles and carbon particles introduced into a chamber while mixing the aluminum oxide particles and carbon particles within the chamber and while passing nitrogen gas over the mixing aluminum oxide particles and carbon particles with the chamber having a temperature about 1700-1900°C during conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride as set forth in claim 38.

Claim 39 points out that the process includes reacting aluminum oxide particles and carbon particles introduced into a chamber while mixing the aluminum oxide particles and carbon particles within the chamber and while passing nitrogen gas over the mixing aluminum oxide particles and carbon particles with the chamber having a temperature selected to convert the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride *during the conversion* of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride. It is respectfully submitted that nothing in either Maguire (4686070) alone, or in view of Serpek (1030929 describe, suggest or recognize that aluminum oxynitride be produced by reacting aluminum oxide particles and carbon particles introduced into a chamber while mixing the aluminum oxide particles and carbon particles within the chamber and while passing nitrogen gas over the mixing aluminum oxide particles and carbon particles with the chamber having a temperature selected to convert the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride *during the conversion* of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride as set forth in claim 39.

Claim 41 points out that the method includes reacting aluminum oxide particles and carbon particles introduced into the provided chamber while mixing the aluminum oxide particles and carbon particles within the provided chamber and while passing nitrogen gas over the mixing aluminum oxide particles and carbon particles with the

chamber having a temperature **maintained** and sufficient to, convert the aluminum oxide particles, carbon particles and nitrogen into the aluminum **oxynitride during the conversion process**. It is respectfully submitted that nothing in either Maguire (4686070) alone, or in view of Serpek (1030929) describe, suggest or recognize that aluminum oxynitride be produced by reacting aluminum oxide particles and carbon particles introduced into the provided chamber while mixing the aluminum oxide particles and carbon particles within the provided chamber and while passing nitrogen gas over the mixing aluminum oxide particles and carbon particles with the chamber having a temperature **maintained** and sufficient to, convert the aluminum oxide particles, carbon particles and nitrogen into the aluminum **oxynitride during the conversion process** as set forth in claim 41.

Claim 47 points out that the process includes reacting aluminum oxide particles and carbon particles continuously introduced into a chamber while continuously mixing the aluminum oxide particles and carbon particles within the provided chamber and while passing nitrogen gas over the mixing aluminum oxide particles and carbon particles with the chamber being at a temperature maintained to continuously convert the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride and wherein said the temperature of the chamber is maintained during the conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride. It is respectfully submitted that nothing in either Maguire (4686070) alone, or in view of Serpek (1030929) describe, suggest or recognize that aluminum oxynitride be produced by reacting aluminum oxide particles and carbon particles continuously introduced into a chamber while continuously mixing the aluminum oxide particles and carbon particles within the provided chamber and while passing nitrogen gas over the mixing aluminum oxide particles and carbon particles with the chamber being at a temperature maintained to continuously convert the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride and wherein said the temperature of the chamber **is maintained during the conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride** as set forth in claim 47.

Claim 53 points out that the process includes reacting aluminum oxide particles and carbon particles continuously introduced into a chamber while continuously mixing

and heating the provided chamber with the aluminum oxide particles and carbon particles within the provided chamber and while passing nitrogen gas over the mixing aluminum oxide particles and carbon particles with the heating of the chamber being maintained to convert the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride and wherein said the temperature of the chamber is maintained during the conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride. It is respectfully submitted that nothing in either Maguire (4686070) alone, or in view of Serpek (1030929) describe, suggest or recognize that aluminum oxynitride be produced by reacting aluminum oxide particles and carbon particles continuously introduced into a chamber while continuously mixing and heating the provided chamber with the aluminum oxide particles and carbon particles within the provided chamber and while passing nitrogen gas over the mixing aluminum oxide particles and carbon particles with the heating of the chamber being maintained to convert the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride and wherein said the temperature of the chamber is maintained during the conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride as set forth in claim 53.

Claim 54 points out that the method includes reacting aluminum oxide particles and carbon particles continuously introduced into a chamber while heating the provided chamber and continuously mixing the aluminum oxide particles and carbon particles within the provided chamber and while passing nitrogen gas over the mixing aluminum oxide particles and carbon particles with the heating of the chamber being selected to continuously convert the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride and wherein said the temperature of the chamber is maintained during the conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride. It is respectfully submitted that nothing in either Maguire (4686070) alone, or in view of Serpek (1030929) describe, suggest or recognize that aluminum oxynitride be produced by reacting aluminum oxide particles and carbon particles continuously introduced into a chamber while heating the provided chamber and continuously mixing the aluminum oxide particles and carbon particles within the provided chamber and while passing nitrogen gas over the mixing aluminum oxide

particles and carbon particles with the heating of the chamber being selected to continuously convert the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride and wherein said the temperature of the chamber is maintained during the conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride as set forth in claim 54.

New claim 58 points out that the method includes mixing the aluminum oxide particles and carbon particles within a chamber while passing nitrogen gas over the aluminum oxide particles and carbon particles during the mixing with the temperature of the chamber being maintained constant during conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride. It is respectfully submitted that nothing in either Maguire (4686070) alone, or in view of Serpek (1030929) describe, suggest or recognize that aluminum oxynitride be produced by mixing the aluminum oxide particles and carbon particles within a chamber while passing nitrogen gas over the aluminum oxide particles and carbon particles during the mixing with the temperature of the chamber being maintained constant during conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride, as set forth in claim 58.

New claim 60 points out that the method includes mixing aluminum oxide particles and carbon particles while passing nitrogen gas thereover at a temperature sufficient to form the aluminum oxynitride. It is respectfully submitted that nothing in either Maguire (4686070) alone, or in view of Serpek (1030929) describe, suggest or recognize that aluminum oxynitride be produced by includes mixing aluminum oxide particles and carbon particles while passing nitrogen gas thereover at a temperature sufficient to form the aluminum oxynitride as set forth in claim 60.

New claim 62 points that in the process recited in claim 60 the temperature is held substantially constant.

New claim 63 points out that in the process recited in claim 62 the temperature is within a range of about 1700-1900 °C.

New claim 64 points out that in the process recited in claim 60 the aluminum oxide particles and carbon particles are introduced continuously while said aluminum oxynitride is removed continuously.

New claim 65 points out that in the process recited in claim 64 the temperature is within a range of about 1700-1900 °C.

New claim 66 points out that in the process recited in claim 64 the temperature is held substantially constant.

New claim 67 points out that in the process recited in claim 66 the temperature is within a range of about 1700-1900 °C.

New claim 68 points out in the process recited in claim 60 the mixing of the aluminum oxide particles and carbon particles while passing nitrogen gas thereover is at a temperature and time sufficient to form the aluminum oxynitride.

New claim 69 points out that in the process recited in claim 68 the temperature is within a range of about 1700-1900 °C.

New claim 70 points out that in the process recited in claim 68 the temperature is held substantially constant.

New claim 71 points out that in the process recited in claim 70 the temperature is within a range of about 1700-1900 °C.

New claim 72 points out that in the process recited in claim 68 the aluminum oxide particles and carbon particles are introduced continuously while said aluminum oxynitride is removed continuously.

New claim 73 points out that in the process recited in claim 72 the temperature is within a range of about 1700-1900 °C.

New claim 74 points out that in the process recited in claim 72 the temperature is held substantially constant.

New claim 75 points out that in the process recited in claim 74 the temperature is within a range of about 1700-1900 °C.

New claim 76 points out that the process includes mixing the aluminum oxide particles and carbon particles within the chamber while passing nitrogen gas over the aluminum oxide particles and carbon particles during the mixing with the temperature of the chamber being maintained sufficient during the entire conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride. It is respectfully submitted that nothing in either Maguire (4686070) alone, or in view of Serpek (1030929) describe, suggest or recognize that aluminum oxynitride be produced

by mixing the aluminum oxide particles and carbon particles within the chamber while passing nitrogen gas over the aluminum oxide particles and carbon particles during the mixing with the temperature of the chamber being maintained sufficient during the entire conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride as set forth in claim 76.

New claim 77 points out that in the process recited in claim 76 the temperature is within a range of about 1700-1900 °C during the entire conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride.

New claim 78 points out that in the process recited in claim 76 the temperature is held substantially constant during the entire conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride.

New claim 79 points out that in the process recited in claim 78 the temperature is within a range of about 1700-1900 °C during the entire conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride.

New claim 80 points out that in the process recited in claim 76 the aluminum oxide particles and carbon particles are introduced continuously while said aluminum oxynitride is removed continuously.

New claim 81 points out that in the process recited in claim 80 the temperature is within a range of about 1700-1900 °C during the entire conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride.

New claim 82 points out that in the process recited in claim 80 the temperature is held substantially constant during the entire conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride.

New claim 83 wherein claim 82 the temperature is within a range of about 1700-1900 °C during the entire conversion of the aluminum oxide particles, carbon particles and nitrogen into the aluminum oxynitride.

Considering now the rejections under 35 USC 112, it is first noted that the term "predetermined" has been removed from the claims in order to simplify issues. It is noted for the record, however, that the Applicant disagrees with the rejection. Applicant has

searched the USPTO database and found that over a half a million patents have issued which use the term "predetermined" in the claims.

With regard to the use of the term "continuously", Applicant respectfully disagrees with the position of the examiner. Attached is a print out from the USPTO website indicating that over 100,00 patents have issued with the term "continuously" in the claims. Applicant respectfully requests that the Examiner provide a case holding the use of the term "continuously" is indefinite.

With regard to the rejection of claim 33 on grounds of double patenting in view of claim 38 it is requested that the rejection be addressed upon the finding of allowable subject matter.

With regard to the rejection as to the form of the claim, such applies where there is a plurality of steps. Here the mixing, passing of nitrogen, heating, etc. are performed in one step. Therefore, Applicant respectfully disagrees with the rejection. However, in order to reduce issues, Applicant has amended claims 8, 10-11, 13 and 32-57.

In the event any additional fee is required, please charge such amount to Patent and Trademark Office Deposit Account No. 50-3192.

Respectfully submitted,

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Date

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Attachment

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ACLM/continuously

PAT.
NO.

Title

- 1 7,051,299 **T** Method for generating reusable behavioral code
- 2 7,051,256 **T** Processor emulator transferring data with emulation controller continuously without interruption
- 3 7,050,977 **T** Speech-enabled server for internet website and method
- 4 7,050,934 **T** Method of weighted combination specs for enhanced manufacturing yield
- 5 7,050,911 **T** Method of identifying changes in biopolymers
- 6 7,050,899 **T** Slew rate revlimiter
- 7 7,050,891 **T** Method and system for guiding and positioning a self-propelled vehicle with sequential barcodes
- 8 7,050,857 **T** Programming system for medical devices
- 9 7,050,844 **T** Method for detecting the three-dimensional position of a medical examination instrument introduced into a body region, particularly of a catheter introduced into a vessel
- 10 7,050,839 **T** Mobile communication terminal including automatic frequency control function
- 11 7,050,813 **T** Parallel computer network and method for telecommunications network simulation to route calls and continuously estimate call billing in real time
- 12 7,050,753 **T** System and method for providing learning material
- 13 7,050,695 **T** Optical communication system
- 14 7,050,694 **T** Continuously variable attenuation of an optical signal using an optical isolator
- 15 7,050,572 **T** Telephone set and response method to incoming call
- 16 7,050,570 **T** DTMF signal transmission method and communication apparatus
- 17 7,050,506 **T** Method and apparatus for modulating and demodulating data into a variable-length